

DETAILED ACTION

Claim Objections

1. **Claims 1-17, 23-28** are objected to because of the following informalities:

Claim 1, all parameters "n", "d", "m" should be clearly defined.

Claim 6, all parameters "n", "d", "m" and "x" should be clearly defined.

Claim 13, all parameters "n", "d", "m" and "x" should be clearly defined.

Claim 23, all parameters "n", "d", "m", "T" and "x" should be clearly defined.

Claim 25, the parameter "m" should be clearly defined.

Claim 26, the parameter "m" should be clearly defined.

Claim 28, the parameter "m" should be clearly defined.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 18-20** are rejected under 35 U.S.C. 102(e) as being anticipated by Buehrer et al. (US 6,614,857) (hereinafter Buehrer).

Regarding claim 18, Buehrer discloses the claimed subject matter including "receiving a block of symbols;

estimating a channel using at least one of the symbols;
choosing a group of symbols from the received symbols;
compensating the group of symbols using the channel estimate; and
re-estimating the channel using the group of compensated symbols and the at least one of the symbols" as follows. Buehrer discloses iterative channel estimation and compensation in which initial channel estimation is obtained on the basis of received signal symbols. Compensating the initial estimation for estimating the data and the channel is "re-estimated" on the basis of block of data symbols (Figure 1; Col. 2, lines 44-52; Col. 3, line 24 to Col. 4, line 45; Col. 6, lines 28-32).

Regarding claim 19, Buehrer also discloses the claimed subject matter "repeating the steps of choosing a group of symbols, compensating the group of symbols and re-estimating the channel" in Col. 2, lines 44-52; Col. 3, line 24 to Col. 4, line 45; Col. 6, lines 28-32.

Regarding claim 20, Buehrer also discloses the claimed subject matter "wherein the at least one of the symbols is a pilot symbol" in Col. 3, lines 27-29.

Allowable Subject Matter

4. Claims 1-17, 23-28 are allowed.
5. Claims 21-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jones et al. (US 6,757,241) disclose System For Interference Cancellation.

Belotserkovsky et al. (US 6,771,591) disclose Method And System For Processing Orthogonal Frequency Division Multiplexed Signals.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 571-273-3040. The examiner can normally be reached on 5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dac V. Ha
Examiner
Art Unit 2634

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